

**Amendments to the Claims:**

This listing of claims will replace all prior versions and listings of claims in the application:

**Listing of Claims:**

1-2. (Cancelled)

3. (Currently Amended) A patch for tooth whitening, comprising a tooth-adhering layer (1) containing erodible polymer complexes formed by hydrogen bonding of a first polymer with a carboxyl group (-COOH) and a second polymer with a carbonyl group (-C=O) or ether group (-O-) and a tooth whitening agent, wherein the first polymer comprises from 1% to 10% of the total dry weight of the tooth-adhering layer, and the second polymer comprises from 40% to 80% of the total dry weight of the tooth-adhering layer; and wherein the first polymer with the carboxyl group is the a (meth)acrylic acid copolymer, and the second polymer with the carbonyl group or ether group is the polyvinylpyrrolidone; and an erosion rate-controlling layer (2) containing a mixture of a hydrophilic polymer and a film-forming polymer,

wherein the hydrophilic polymer ranges from 10% to 60% of the total dry weight of the erosion rate-controlling layer and the film-forming polymer ranges from 5% to 65% of the total dry weight of the erosion rate-control layer; and

wherein the hydrophilic polymer is hydroxypropyl cellulose and the film-forming polymer is a (meth)acrylic acid copolymer.

4-6. (Cancelled)

7. (Currently Amended) The patch as set forth in claim 3, wherein the ~~(meth)acrylic acid copolymer~~ first polymer of the tooth-adhering layer is selected from the group consisting of poly(methacrylic acid-co-methyl methacrylate) copolymer with a monomer molar ratio of 1:1, poly(methacrylic acid-co-methyl methacrylate) copolymer with a

monomer molar ratio of 1:2, and poly(methacrylic acid-co-ethyl acrylate) copolymer with a monomer molar ratio of 1:1.

8. (Currently Amended) The patch as set forth in claim 3 5, wherein the ~~(meth)acrylic acid-copolymer~~ film-forming polymer of the erosion rate-controlling layer is selected from the group consisting of poly(methacrylic acid-co-methyl methacrylate) copolymer with a monomer molar ratio of 1:1, poly(methacrylic acid-co-methyl methacrylate) copolymer with a monomer molar ratio of 1:2, and poly(methacrylic acid-co-ethyl acrylate) copolymer with a monomer molar ratio of 1:1.

9. (Previously Presented) The patch as set forth in claim 3, wherein the tooth whitening agent in the tooth-adhering layer is selected from the group consisting of hydrogen peroxide, carbamide peroxide, calcium peroxide, sodium percarbonate, sodium perborate and tetrasodium pyrophosphate peroxide.

10. (Previously Presented) The patch as set forth in claim 3, further comprising a plasticizer which is selected from the group consisting of propylene glycol, glycerol, triethylcitrate, sorbitol and polyethylene glycol.

11. (Currently Amended) The patch as set forth in claim 3, further comprising a peroxide-stabilizing agent which is selected from the group consisting of ethylenediaminetetraacetic acid (EDTA), citric acid, ~~polyphosphate~~ polyphosphates, phosphonates, sorbitan monolaurate (SML), sorbitan monopalmitate (SMP), sorbitan stearate, sorbitan monooleate (SMO), sorbitan oleate, sorbitan trioleate and POE sorbitan fatty acid ester surfactants.

12. (Previously Presented) The patch as set forth in claim 3, further comprising a condensed polyphosphate which is selected from the group consisting of sodium metaphosphate, potassium metaphosphate, sodium hexamethaphosphate, tetrasodium pyrophosphate, sodium acid pyrophosphate and sodium tripolyphosphate.

13. (Cancelled)
14. (Previously Presented) The patch as set forth in claim 3, wherein a thickness of the patch ranges from 50  $\mu\text{m}$  to 300  $\mu\text{m}$ .
15. (Previously Presented) The patch as set forth in claim 14, wherein the tooth-adhering layer has a thickness of 30  $\mu\text{m}$  to 200  $\mu\text{m}$ , and the erosion rate-controlling layer has a thickness of 20  $\mu\text{m}$  to 100  $\mu\text{m}$ .
16. (New) The patch as set forth in claim 3, further comprising polyethylene glycol in the tooth-adhering layer, wherein the polyethylene glycol comprises about 4 weight % of the total weight of the tooth-adhering layer prior to drying.
17. (New) The patch as set forth in claim 3, further comprising polyethylene glycol in the erosion rate-controlling layer, wherein the polyethylene glycol comprises about 6 weight % of the total weight of the erosion rate-controlling layer prior to drying.
18. (New) The patch as set forth in claim 3, wherein the tooth-adhering layer is dried at about 40  $^{\circ}\text{C}$  to about 80  $^{\circ}\text{C}$ .
19. (New) The patch as set forth in claim 3, wherein the erosion-controlling layer is dried at about 40  $^{\circ}\text{C}$  to about 80  $^{\circ}\text{C}$ .
20. (New) The patch as set forth in claim 3, wherein the tooth-adhering layer and the erosion-controlling layer are laminated.
21. (New) The patch as set forth in claim 20, wherein the laminated tooth-adhering layer and erosion-controlling layer is dried at about 40  $^{\circ}\text{C}$  to about 80  $^{\circ}\text{C}$
22. (New) The patch as set forth in claim 3, wherein the patch erodes from about 30 minutes to about 3 hours after application to the teeth.